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- 17 -

Amended set of claims

Sub A1

Sub B1  
cont.

Sub A3

Sub B1  
cont.

1. Process for the preparation of foamed thermoplastic polyurethanes characterised in that the foaming of the thermoplastic polyurethane is carried out in the presence of thermally expandable microspheres and in the presence of an additional blowing agent, said microspheres containing a hydrocarbon.
2. Process according to claim 1 wherein the hydrocarbon is an aliphatic or cycloaliphatic hydrocarbon.
3. Process according to any of the preceding claims wherein an endothermic blowing agent is present.
4. Process according to any of the preceding claims wherein an exothermic blowing agent is present.
5. Process according to claim 3 or 4 wherein the endothermic blowing agent comprises bicarbonates or citrates.
6. Process according to any of claims 4-5 wherein the exothermic blowing agent comprises azodicarbonamide type compounds.
7. Process according to any of the preceding claims which is carried out by injection moulding.
8. Process according to any of the preceding claims which is carried out in a pressurized mould.
9. Process according to any of the preceding claims wherein the starting thermoplastic polyurethane is made by using a difunctional isocyanate composition comprising an aromatic difunctional isocyanate.
10. Process according to claim 9 wherein the aromatic difunctional isocyanate comprises diphenylmethane diisocyanate.

Sub B1 cont.  
11. Process according to claim 10 wherein the diphenylmethane diisocyanate comprises at least 80% by weight of 4,4'-diphenylmethane diisocyanate.

Sub A6  
12. Process according to claims 9-11 wherein the difunctional polyhydroxy compound comprises a polyoxyalkylene diol or polyester diol.

Sub B1 cont.  
13. Process according to claim 12 wherein the polyoxyalkylene diol comprises oxyethylene groups.

14. Process according to claim 13 wherein the polyoxyalkylene diol is a poly(oxyethylene-oxypropylene) diol.

Sub A7  
15. Process according to any of the preceding claims wherein the amount of microspheres is between 0.5 and 4.0 parts by weight per 100 parts by weight of thermoplastic polyurethane.

Sub B1 cont.  
16. Process according to claim 15 wherein the amount of microspheres is between 1.0 and 3.0 parts by weight per 100 parts by weight of thermoplastic polyurethane.

Sub A8  
17. Process according to any of the preceding claims wherein the amount of blowing agent is between 0.5 and 4.0 parts by weight per 100 parts by weight of thermoplastic polyurethane.

Sub B1 cont.  
18. Process according to claim 17 wherein the amount of blowing agent is between 1.0 and 3.0 parts by weight per 100 parts by weight of thermoplastic polyurethane.

Sub A9  
19. Foamed thermoplastic polyurethane obtainable by reacting a difunctional isocyanate composition with at least one difunctional polyhydroxy compound, in the presence of thermally expandable microspheres containing hydrocarbon, and in the presence of an additional blowing agent, said polyurethane having a density of not more than  $700 \text{ kg/m}^3$ .

20. Foamed thermoplastic polyurethane according to claim 19 having a density of not more than  $600 \text{ kg/m}^3$ .

21. Reaction system comprising TPU and thermally expandable microspheres containing a hydrocarbon, said reaction system comprising an additional blowing agent.

Add A10